

Notice of Allowability

Application No.

09/940,432

Examiner

Charles Kim

Applicant(s)

MURATA ET AL.

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to submissions received on 6/13/2007.
2. ☒ The allowed claim(s) is/are 1,3-10,12-25,27-45 (renumbered as claims 1-42 accordingly).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 13, 2007 has been entered.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kurt Berger (Registration No. 51,461) on July 23, 2007. The application has been amended as follows:

In the claims:

Claim 34, line 1, replace "method according to" with --apparatus of--

Claim 35, line 1, replace "method according to" with --apparatus of--

Claim 36, line 1, replace "method according to" with --apparatus of--

Claim 37, line 1, replace "method according to" with --apparatus of--

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Claim 38, line 1, replace “method according to” with --apparatus of--

Claim 39, line 1, replace “method according to” with --apparatus of--

Claim 40, line 1, replace “image processing method according to” with --computer readable storage medium of--

Claim 41, line 1, replace “image processing method according to” with --computer readable storage medium of--

Claim 42, line 1, replace “image processing method according to” with --computer readable storage medium of--

Claim 43, line 1, replace “image processing method according to” with --computer readable storage medium of--

Claim 44, line 1, replace “image processing method according to” with --computer readable storage medium of--

Claim 45, line 1, replace “image processing method according to” with --computer readable storage medium of--

Reasons for Allowance

3. The following is an examiner’s statement of reasons for allowance:

Referring to claim 1, 9 and 15, the essential difference from the prior art is calculating the direction of the tangible object plane based on the feature point and the matched point, the tangible object plane being defined by a spatial orientation of the tangible object. Moreover, the prior does not disclose selecting one of the plurality of overlapping images as a standard image based on: (1) a direction of a straight-line pattern in each image, (2) the feature point and the

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matched point, or (3) a calculated direction of the object plane for each of the plurality of overlapping images. These features in combination with the other elements of the claim and the base claim are not disclosed or suggested by the prior art of record.

Referring to claims 6, 7, 16, the essential difference from the prior art is calculating the direction of the tangible object plane based on the feature point and the matched point, the tangible object plane being defined by a spatial orientation of the tangible object. Moreover, the prior does not disclose selecting one of the plurality of overlapping images as the standard image that contains the smallest amount of image distortions among the plurality of overlapping images. These features in combination with the other elements of the claim and the base claim are not disclosed or suggested by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Kim whose telephone number is 571-272-7421. The examiner can normally be reached on Mon thru Thurs 8:30am to 6pm and alternating Fri 9:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles Kim
Patent Examiner
Art Unit 2624
chongr.kim@uspto.gov



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

July 23, 2007